

little short of one hundred. I myself twice saw some fifteen carcasses of small Ibex embedded in the snow-drifts of the Tilail valley.

The most convincing proof, however, of the havoc caused among the wild animals by the great snow-fall, is the fact that scarcely any Ibex were seen during last summer, in those portions of the Wardwan and Tilail valleys, which are ordinarily considered as sure finds. Near saline springs in the latter valley, Ibex are always to be found in the later summer, but this year I only heard of one solitary buck, probably the sole survivor of a herd, having been seen at these salt-licks. The native shikaris say that almost all the Ibex have either been killed by the snow, or have migrated into Skardo where the snow-fall was less.

The Red-Bear (*Ursus isabellinus*) was also far less numerous during the past summer than in ordinary seasons, and the shikaris say that numbers of them have perished, owing to their winter quarters having been snowed up so long that the occupants perished from hunger.

The same explanation will probably account for the fact that in the higher regions I found many of the marmot burrows deserted.

Much has been said lately as to the destruction inflicted on the game of the Kashmir Himalaya by the rifle of the European sportsmen, but I think that the destruction caused by the snow of the past winter has far exceeded any slaughter which would be inflicted by sportsmen during a period of at least five or six years.

XV.—*Physiographical Notes &c. on Tanjore (Tanjá-úr).*—By LIEUTENANT-COLONEL B. R. BRANFILL, *Deputy Superintendent, Great Trigonometrical Branch, Survey of India*,—Communicated by COLONEL J. T. WALKER, C. B., R. E., *Surveyor-General of India*.

The Tanjore district of the Madras Presidency is nearly contained within an equilateral triangle of 75 to 80 miles on each side, on the Coromandel coast (Chóramandal = Chólan's region) immediately south of the river Kollađam (*Anglice* "Coleroon"), which is the north and north-west boundary, running S. W. by W. 75 miles inland from the river mouth. The Bay of Bengal forms the east side, running from the same point nearly 75 miles due south to Point Calimere (Kalliméd). The third side is an irregular line of much the same length from Point Calimere to the "Cauvery" (Kávéri and Kollađam) 10 miles east of Trichinopoly (Trisirápalli). This triangular area contains about 3,000 square miles, two thirds of which is Kávéri delta, and two thirds of this portion, or about 1,400 square miles

is irrigated, and there is scarcely another acre of it that could be profitably brought under irrigation. In addition to this, some 650 square miles of undulating country, running 40 miles to the southward along the shore of Palk's Bay to the Pámbanár, the border of Shivagangai Zamindári estate (Madura District), and extending 12 to 20 miles inland, also belongs to Tanjore. But the scope of these notes does not embrace more than the deltaic portion of Tanjore, the country to the south having been traversed the previous season, and reported on.

Although there are several places named "hill" (malai), or "mound" (médu), there is nothing at all worthy to be called a hill, except the *dunes* or sand hillocks along the sea-board, the height of which (at Negapatam) barely attains an elevation of 50 feet above sea level, and a few insignificant sand-drifts in the E. N. E. corner of the delta, near the mouth of the Kollađam river.

The whole delta consists of an even plain of alluvial deposit containing a comparatively large proportion of sand and having a good slope of 3 or 4 feet per mile. The fall, however, decreases as the coast is neared to 2 feet per mile or less. The following particulars of slope are from the railway levels of the South India Railway, according to which the bed of the Kávéri for nearly one hundred miles, from Karúr to within 30 miles of the present coast line, has a pretty even fall of near 4 feet a mile. The next 10 miles the gradient decreases to about 3 feet per mile, and the next to within 10 miles of the coast to 2 feet per mile.

Continuing the examination of the declivity (by means of the recent Government Hydrographic or Marine Charts), the fall of the ground out at sea beyond the coast line increases in the first fourteen miles to 5 or 6 feet per mile, to 8 or 9 feet per mile for the next nine miles, to 24 feet per mile for the next six, and to 38 feet per mile for the last ten miles examined up to 37 miles from the coast. This rapid deepening of the sea is a noticeable fact, but it seems only natural if the present coast line is of purely fluviate formation.

The character of the alluvium alters and generally deteriorates in fertility as the distance from the head sluices of the Kávéri channels increases. It varies from a rich red or black loam to a pale sandy clay, the sand increasing and the clay diminishing from west to east, and but for the annual fertilizing floods would be anything but rich and productive. Without artificial manure the land usually bears but one crop yearly.

The sea-board flats are usually well raised above sea-level, and further protected from high tides and storm waves by a high sand-ridge along the coast. Cyclones have been frequent on the coast, but have not made the great devastating inroads they appear to have made elsewhere on the coast. The formation of this coast-ridge or sea-wall appears to be

explained by the strong sea breezes which prevail in the hot and dry season, and, blowing strongest at the hottest part of the day, when the sand of the sea beach is driest and most easily raised, continually drift it up inland to accumulate under the shelter of the coast vegetation.

It is thus formed into a ridge, or line of hillocks, parallel to the shore-line at the inner and upper edge of the beach, frequently standing at a steep slope on both sea-ward and land-ward sides. The blown sand does not appear to extend far inland, being kept down by the fringe of palms and other vegetation that usually grows near the coast. This advanced vegetation equally protects the sand-ridge from being blown down again and out to sea in the violent westerly winds of the south-west monsoon.

This coast sand-ridge is a common feature on the coasts of Southern India, and it seems likely that the devastating storm-waves which have visited the coast have only or chiefly destroyed the towns and villages that were unprotected by it, such as those most conveniently situated for trade at the mouth of a river or inlet, and those opposite to a muddy coast line where there is no sand that will drift. In such places (in the number of which Madras may be included), it would be prudent to raise an artificial wall or 'levée'; a small price to pay for immunity from such a calamity as befel Masulipatam in 1864, when many thousands of persons* perished miserably, and such as has probably swept out of existence many a flourishing port on the Coromandel Coast.

As to whether the coast line of the Kávéri delta is altering, it may be well to consider the elements of change at work. We notice first the silt-bearing floods of the autumnal rains, which are doubtless yearly raising the level of the land generally and tending to make it encroach on the sea, extending the coast line eastwards and shoaling the sea-bed, a slow but unceasing process, albeit the effects may seem to wax and wane and even to contradict what must inevitably occur sooner or later. The process of new land-formation may be much slower now than it was before the great irrigation works were begun, but so long as fresh silt is brought down by the annual floods, it cannot cease altogether. The heaviest grains are dropped first as the current slackens, whilst the lightest are carried on until the river current is lost in the quiet depths of the open sea.

The next element of change is the wind, which acts both directly and indirectly and in various ways. First, there is the north-east monsoon (wind), acting indirectly by means of the southward, long-shore current which carries the silt-bearing floods more or less down the coast, and so to deposit their heaviest burden to the south of the river outlets, thus commencing the sand-banks which help to shift the river mouth northwards. This wind cannot act directly on the shore sand to the north of

* 30,000 persons are stated to have perished in one night.

the river mouths, because the sand is then moist from the recent autumnal rains, the heaviest rain of the year, and therefore unmoved. But the southward set of the rollers and beat of the surf must tend to drift the shore-sand loosened by its violence, southward across the river mouths, which it shoals, helping to form the bar of sand-banks and islands usually formed in such situations.

In January and February the north-east monsoon (wind) gradually changes into land and sea breezes, which increase as the spring advances with clear weather and a hotter sun. The sand of the sea-shore rapidly dries and is drifted by the sea-breezes to the top of its slope, as long as there is loose sand to drift and nothing to shelter it.

The sea-breezes veer gradually to the south-east and southward until in May they become strong '*long-shore*' winds from the south, directly transporting northward much of the blown sand collected along the coast-ridge, in clouds of dust which settles in the hollows and tends to fill up and choke the southern edges of the river out-falls and so to shift them northwards.

With the change of wind from the north-east in January to south-east and south in April and May, the '*long-shore*' current changes from south to north, latterly running rapidly northwards and bringing in the heavy sea-rollers obliquely to the coast from the south-east, to dash in lines of roaring surf on the shore, washing the sand of the beach northwards at every stroke. This double action it is (perhaps chiefly) that drives the river mouths northwards.

Whether this is the right explanation or not, the fact remains that the mouths of the rivers of the Coromandel Coast are continually shifting northwards.

This is seen best in the Mahánadi and Kávéri; also in the Pennér (Pináka), Nagari river, Kordaliyár, Kú-am, Pálár and Vaigai.

It is less noticeable in the Gódávéri, Vellár, and Támraparani. The Kistna seems to contradict this tendency, and the Gódávéri also has one outlet apparently to the south of its delta, but these apparent exceptions probably admit of some explanation. On the west coast, the Nétrávati exhibits a similar tendency to make its outlet into the sea considerably north of the spot it seems to be going to, as it approaches the coast. The northward shifting of the Nétrávati mouth is probably due to the northward set of the current, and the violent beat of the breakers during the south-west monsoon, which has nothing to counter-balance it. It seems probable that where the beach is sandy, the same tendency of the river-mouths to shift northwards may be observed in Ceylon.

After shifting for an indefinite period to the north, during which it seems probable that the bed of the river must be silting up, especially

near the outfall where the current is less, some unusually high flood may be expected to top the bank and thus form a new outlet to the south. This may possibly occur near the head of the delta, and the new channel may take its course along the southern edge or border and recommence the process of shifting its mouth northward again. This may be the explanation of the Kistna apparently flowing along the southern border of its delta; it also points to a possibility of the Kávéri doing the same thing some day.

When a river has opened a new mouth and abandoned the whole or a portion of its course, especially that which ran parallel to the coast, it seems only likely that a lagoon or *back-water* will be formed, which will sooner or later silt up and eventually be reclaimed entirely from the sea.

Having thus considered the causes of the northward shifting of the river mouths on the Coromandel Coast, to which the Kávéri has been subject continually during the formation of its delta, to the east of Trichinopoly, the probable history of its more recent inland course offers itself for consideration.

Dr. Burnell of the Madras Civil Service states he has met with no mention of the Kolladam (Coleroon), which is now the principal bed of the lower Kávéri, by the early geographers, and thinks that the channel which passes by Kumbakónam and Máyaveram and enters the sea at Kávéri-paṭṭanam, having retained the name of Kávéri throughout its course, was the main channel of the river till the 10th or 12th century.

From Ptolemy's map of the Coast of India, it would appear that 1,500 to 2,000 years ago, there was a spit of land jutting out into the sea at the Kávéri mouth near "*Chaberis Emporium*" (Kávéri-paṭṭanam), of which there is now no trace, either above or below the sea-level contour line.

Such a spit or shoal would, however, naturally disappear if the river mouth shifted, or if any thing stopped the deposition of silt which formed it, and this must have happened when the great irrigation works at the head of the delta were constructed.

At present the Kávéri-paṭṭanam mouth of the Kávéri is nearly silted up, and the principal outlet of the surplus flood-water is now by the mouth of the Kolladam, where, according to recent maps, a new deltaic projection and shoal are forming.

The great irrigation works are supposed to have been constructed in the 10th and 12th centuries, but local traditions represent them as early as the year 200 A. D. In any case, the delta has been under irrigation from time immemorial. The story of the Kávéri main channel would seem to be somewhat thus:—After some long period of silting up from the deposit left by the annual floods, the river in some unusual inundation must have overflowed its banks and found a new and easier course.

This diversion may have occurred either above or below what is now the island of Srírangam, lying like a sand-bank in mid-river. If it occurred above, it seems likely that the new channel or northern branch (the Kollaḍam*), soon became the deeper bed of the two, and then either approached and threatened, or actually breached the north bank of the southern or old Kávéri branch below the island, and the 'grand anaikaṭ' (dam or weir), which is strictly a river-wall or 'levée', must have been built to prevent or repair a breach.

If, on the other hand, the breach or bifurcation occurred below Srírangam, the 'grand anaikaṭ' was probably made to repair it and keep the stream back in its own channel: but if so, the attempt was ineffectual, for the river must have then formed a new bed for itself, some miles higher up the channel, at a point nearly opposite a place marked on the map (Indian Atlas, Sheet 79) as 'Palaya Cauvery' (Old Cauvery).

In either case, the northern channel, which flows along the left or northern border of the delta, and immediately under the gravel up-lands of north-east Trichinopoly, became the deeper and wider one, carrying off the high floods, whilst the south or old Kávéri branch, kept at a higher level with impeded stream and checked by numerous irrigation works, gradually silted up and threatened to leave Tanjore unwatered, for the bed of the Kollaḍam was too deep to admit of irrigation channels being profitably led from it. The difference of level of the two beds at the grand anaikaṭ is variously stated to have been from 10 feet to 20 feet early in this (19th) century and to be rapidly increasing.

In this state the British Government took charge of the district and, after trying many other expedients to save and restore the Kávéri irrigation, in 1836 constructed first the upper anaikaṭ, a weir or dam across the head of the northern branch or Kollaḍam, in order to raise the stream, so as to flow into the Kávéri Proper or southern branch. This proved more than sufficient in times of high floods, and there was danger of overwhelming Tanjore by a sudden inundation from pouring in an excessive supply. To remedy this, sluices were formed in the 'grand anaikaṭ' to provide an escape for the sand and surplus water that was not wanted, and finally a head-sluice or regulating dam was made across the Kávéri channel where it enters the delta, below the 'grand anaikaṭ,' thus giving the means of regulating the supply as desired.

The Kávéri proper continues its course through the delta with a

* ? Kolai-(y)-iḍam = 'Slaughter place', from a legend that men were cast into a chasm through which the Kávéri had disappeared, in order to fill it up; a story that looks as if a human sacrifice had been performed at the repair or filling up of a great breach. Kolláyi = a breach in a bank (Gundert). Another suggests Kilai-y-iḍam = 'bifurcation-place', from kilai, a branch, bifurcation &c.

continually diminished stream, giving off numerous supply channels all the way to the Coast, when little stream remains to enter the sea at Kávéri-paṭṭanam or Kílúr (*'East-bourne'*).

There is no projection beyond the normal (north and south) line of the coast here, nor any spit or shoal to witness to any old projection of the river mouth, nor do the Marine Chart soundings indicate anything of the kind. That the diminished stream flows in its old bed, is proved by the name of the channel and the port at its outlet, and also by the traditions at the places on its course, Kumbakónam, Mâyaveram &c., where the sanctity of the Kávéri water is still highly esteemed.

The other and now chief branch, the Kollaḍam, takes a north-easterly course, keeping more and more to the northward along the low ground that probably existed on the north edge of the Kávéri delta, and has, by its rapidity and volume, made for itself a deep and wide bed, too deep below the surface of the country to allow of irrigation channels being led from it, and in most places three-quarters of a mile in width. To utilize the surplus water escaping to the sea by this channel, the 'Coleroon lower anaikaṭ'* was built, to supply the Mâyaveram and Shi-yáli Táluks of N. E. Tanjore, and the Chidambaram (*'Chilambram'*) Táluk of South Arcot.

The water overflowing the final anaikaṭ flows with a greatly retarded current and in a very tortuous course along the last few miles before it enters the sea near Dívu-kóṭai (*'Isle-fort'*, the "Devikotta" of Atlas Sheet No. 79), the name of which indicates, that it was on an island when first named (tívu being the Tamil form of the Sanskrit dvípa, *an island*).

Notwithstanding published statements to the contrary, it appears that sand-banks are still forming at the mouth of the Kollaḍam, and the Marine Chart of the coast gives the position of a shoal called the "Coleroon shoal," whence Porto Novo, or Muhammad (? Mahmúd) Bandar, seems likely to be left far inland in course of time.

The direction of the Kollaḍam bed being more north and south than that of the so called S. W. monsoon wind—of which fact, there is ample proof in the permanent eastward set of the stems, twigs and branches of the trees exposed to it—the fine blown sand of the river bed in the dry and hot season (April and May), is drifted up into heaps and lines along the southern or right bank of the river, tending to form a natural river wall there and to keep the stream nearer to the northern bank.

The Kávéri delta is only about 10 miles in width at Tanjore and it is flanked by comparatively high ground, composed of previous sedimentary formation, stratified beds of laterite, conglomerate and mottled grit, with quartz pebbles mixed, through which the river first cut its way, whilst depositing the material of its present delta.

* Locally "Anaikarai" or Dam-bank.

There are some 50 or 60 different river channels, by which the Kávéri water is distributed for irrigation, or for drainage over the whole extent of the delta, the names of which being mostly derived from those of reigning princes, should throw some light upon the history of the country, for there are representatives of the old Pándiyan and Chólan dynasties, who reigned before the 16th century, as well as of the Telugu Nayakans who superseded them, and possibly also of the Mahrattas whom the British Government succeeded. There are thirteen tidal mouths of the Kávéri that enter the sea and are more or less navigable for small boats.

There has been little change in the principal river channels of late years, due in a great measure to the conservative measures adopted under the British Government, and to the great regulating works, constructed for keeping the floods under control. There must be a tendency for the channels to silt up, as well as for the whole of the irrigated part of the delta to rise, but there seems to be no apprehension at present of danger to the province from this source.

Near the coast, and more particularly at the south-east corner of the delta, towards Point Calimere (Kalliméd), there are extensive salt-swamps, with patches of jungle and desert.

The Kóðikarai salt-marsh covers nearly 100 square miles, being about 20 miles long east and west, and 5 miles wide north and south. It is used as a vast salt-pan under Government supervision. The two highest spring tides of May and June (called by the natives 'Chittrai Parvam', 'full-moon of April and May', and Visákha Vellam, 'May—June flood') overflow the sea-wall and fill the swamp with brine, which is, in favourable seasons, soon crystallized under the evaporation from the sun and the dry west winds. The south-east and southerly breezes that prevail in May, probably combine to make the spring tides of this season unusually high.

A considerable degree of sanctity is locally attributed to Védáran-yam, ('Véda-forest') and to Kóðikarai ('Promontory-shore') from a tradition that here, as subsequently, at the Rámésvaram promontory, the mythic hero Ráma tried to make a causeway to Lanka, Ceylon. There is now daily postal communication by open boat, between India and Ceylon at this place.

An impression exists that this sea, Palks Straits and Bay, is silting up, but this process must be exceedingly slow, inasmuch as no large rivers now discharge any large proportion of their silt into this receptacle. The Vaigai (? Veghavati) outlet scarcely ever discharges, and as more irrigation works are introduced, this proportion must diminish.

Still this is to a great extent an inland sea surrounded by a sandy shore from which the land-breezes and strong southerly and westerly winds must bear some drift to deposit. Moreover, the northward beat of the surf

along the north-east Coast of Ceylon from April to September, and the southward beat along the east Coast of Tanjore from November to January, must tend more or less to shoal the entrance to Palk's Bay from the Bay of Bengal.

This sea was known to the old geographers as *Sinus Argaricus* (Colonel Yule's map of ancient India has *Sinus Argalicus* for Palk's Bay, and a town marked at the mouth of the Vaigai named "Argari? Argalu? Marallo? (Maravár)"; I would venture to suggest that the sea may very likely have been so named from *Anaikarai*, *The barrier, cross-bank* or *dam-bank*, by which term the great natural 'bund' or causeway, Adam's bridge, between India and Ceylon was probably known. The early Arabian voyagers knew it as (and thence called the country beyond it) 'Ma,abar', *i. e.*, *The ford, ferry* or *passage*. I understand, however, that the name appears in Ptolemy as *Ανχειρονπόλις* (? *Anakarai-town*) from which the Bay may have been called, and, if so, this town may have been the old town now called *Áttankarai* (from *Áru* a river, and *Karai* a bank, shore) situated at the old mouth of the Vaigai river.

It is an interesting question whether the line of sand-banks and islets forming 'Adam's bridge', between *Rámésvaram* and *Mannár*, is undergoing any permanent change. I could learn nothing reliable on the subject when I was there in 1874, '75 and '76, but it can scarcely be at a perfect stand-still. On the one hand, there appear to be traditions that at one time it was possible to walk across at low water dry shod, but I could not learn that this had actually occurred within modern historic times. On the other hand, it would appear that there was a considerable trade carried on between Arabia and China through these Straits, and one would hardly suppose that it could have been carried on in such small vessels as can alone have passed through the passages in "Adam's bridge" previous to the excavation of the *Pámban* channel by the British Government, unless there were passages that have silted up since. Dr. Burnell tells me, he has a reliable Portuguese MS. of 1685, by a Captain J. Ribeiro, stating that there was then "no passage, except two narrow canals, one by *Ramanacor* and the other by *Manar*"; and that "a small 'sumaca' only can pass by either at high water."

At the present time, there is a single channel at *Mannár* answering this description, and none elsewhere, except the new passage at *Pámban*, which has been cut artificially through the rocky reef at a place where in quite recent times, the old built-stone causeway had been breached by storm-waves (in 1484 and since) which also destroyed the adjacent town on the spit of land west of *Pámban* between *Tóni-turai* and *Vettilai Mandapam*.

The surf beats heavily all along "Adam's bridge" during both mon-

soons, and a strong current sets constantly the same way as the wind ; at other times the current varies with the tide, and one would suppose that no sand-banks could withstand the violence of the wash over them at every change of tide. Still the islets and sand-banks do remain as a whole, albeit probably in a state of frequent change individually. But the growth of coral is active here, and new islets are said to be forming where there were none, and old ones increasing.

The blown sand too, seems to have some effective element of conglomeration in it, by which sand-stone is forming constantly. If, however, the available waterway is curtailed by new islets and sand-banks, it would appear likely, that the passage between them must probably become deeper by the increased violence of the water that has to pass. It seems therefore likely, that the land may gain superficially on the sea in Palk's Straits, but equally so that some of the channels may remain as deep as hitherto, or possibly become even deeper for an indefinite time to come.

Tanjore appears to have been occupied from very early times by Tamil people, over whom the Chólan or Sóran dynasty held sway for many centuries prior to the 16th century, and their country was known as the "Chóramandalam" (whence Coromandel).

The Chólan capital was at different times at Káncipuram (Conjeve-ram) ; at U'raiyúr, near Trichinopoly ; at Tanjore ; at Kumbakónam and other places.

The Telugu Nayaks succeeded the Chólan kingdom and ruled in Tanjore for more than a century up to 1675, when the Mahratta princes superseded them, and ruled till they were superseded by the British Government.

The Chólan rulers seem to have done most good for the country by elaborating the extensive system of irrigation, to which the present Government has added little but restorative, conservative and regulating works, of the greatest value no doubt, but no fresh channels have been made. They also built many of the great Hindu Temples, of which there are no less than 3,000 in Tanjore, and their endowments still remain, but the management of many of these is in a deplorable state of neglect, and the temples fast going to ruin. Witness Tirupálturai, Gangaikandapuram, Mannárguḍi and others.

The Nayakan rulers also have left their mark on the country in the numerous Mandapams (open temple halls), Chattrams, (native alms, and rest-houses) and many other buildings, showing their peculiar Indo-Moorish style of architecture, having vaulted roofs and pointed arches, the best specimen of which that I have seen is the palace of Tirumala Nayak at Madura, built about 1650.

A very noticeable fact in the Tanjore delta is the comparative scarcity of forts and fortified towns. The inhabitants appear to me to be

unusually and seriously industrious, and to have a smaller admixture of the warlike classes than any of the South-Indian districts I have passed through. They have been habituated to agriculture for so long that the vice of war has died out, and the people seem too busy and well off to revive it.

The Nayaks do not seem to have introduced many immigrants of Telugu race; the neighbouring warlike tribes of Kallans and Maravans are also absent from the deltaic part of the country, and the pastoral tribes are only found in the more forested tracts beyond the delta.

It is stated that with the exception of a short experience of Muhamadan rule under Haidar 'Ali (in 1780), there is no record of the country having suffered from famine, although food prices have risen very high during the prevalence of famine in adjacent districts.

There is one patent reason for the country not having been harassed by fire and sword, which is, that it was impassable for troops, or could be easily made so, for half the year or more, and *that* in the cool and fine season of autumn and winter, when the rice-fields are all under water. Besides this, there were no made roads in the delta fit for wheeled traffic, except in the dry season. Pack cattle are much used even now.

The irrigated part of the country is now well supplied with raised roads, but even these for the most part are almost useless for any large amount of wheel traffic in the wet season, because they are unmetalled, or only metalled with the ordinary river sand from the channels: and it appears marvellous how a thriving population can be content to pass several months confined to their villages as it were in islands, surrounded by a sea of deep mud, with only doubtful pathways for communication along the narrow and irregular banks dividing the rice-fields. The river channels, when in flood, are not commonly used for communication or traffic. The British Government made some of the channels navigable by means of locks &c., but these have become completely disused, and replaced by railways.

The climate of the Kávéri delta is mild and moist, compared with that of the adjacent districts, due no doubt to its situation on the coast and the great spread of irrigation water. The annual course of the weather is somewhat thus:—

During January the weather is cool and fine with fresh north-east breezes.

In February the wind is lighter and more easterly. Heavy fogs are common night and morning, succeeded by hot days. The rice crop is cut and the country quickly drains dry.

In March, April and May the wind is variable. Near the coast, land and sea-breezes prevail. The hot weather sets in, fields become bare and parched, and the heat increases greatly. Latterly, southerly and south-westerly winds set in, and occasional thunder-storms occur to clear and

cool the air, and an occasional partial 'fresh' comes down the Kávéri channels.

In June, strong westerly winds prevail with much dust and dry heat.

In July, August and September, the river channels fill from the south-west monsoon rain on the western gháts, also from occasional local falls of rain. Early rice cultivation begins, and the westerly winds gradually fall, to be succeeded by calms and variable winds.

In October and November, the wind sets in from the north-east, and heavy falls of rain occur, the temperature falls considerably, and rice cultivation is carried on to the utmost extent.

In December, the weather becomes fine and the wind more steady from the north-east.

The population of Tanjore is dense, being nearly 2,000,000 for an area of 3,700 square miles, giving an average of 540 per square mile, but it amounts, in the richer parts, to 1,000 per square mile. It is composed chiefly (two thirds) of Hinduized local tribes and one third of settlers.

GROSS NUMBER.	CASTE OR RACE.	No.	EMPLOYMENT.	
1,804,000	1,200,000 Hindus of local descent.	Vanniyan (Kallar?).	574,000	Labourers. Menials. Fishermen. Herdsmen, potters, washers, &c.
		Paraiyan (Pallar? &c.)	350,000	
		Sambadavan.	118,000	
		Idaiyans, Sánán, &c.	158,000	
604,000 Immigrants.	604,000 Immigrants.	Vellálan.	348,000	Cultivators. Land and house- owners, scholars, idlers, &c.
		Brahman.	127,000	
		Chetti, &c.	129,000	
103,000	Muhammadans, principally Labbé.			
66,000	Christians.			
1,000	Others.			
TOTAL, 1,974,000				

There are said to be no wild or aboriginal tribes in the district.

Although the famine was scarcely over, in the beginning of 1878 there were no signs of distress visible, but all the people seemed well off. On the contrary, the upper classes seemed to be all the wealthier. Bricks were being made and burnt everywhere. New houses and buildings were being erected, and the effect of the famine appears only to have enriched the dwellers in this land of rice-fields. The labouring population being paid in grain as usual, the high prices prevailing elsewhere did not affect them.